REMARKS

Claims 1-4, 7-13, 16, 17, 19 and 20 are pending. Claims 1, 7 and 12 have been amended. Claims 1, 4, 7, 8, 12 and 16-17 are the independent claims. Favorable reconsideration is respectfully requested.

In the most recent Office Action, claims 1-3, 8, 12, 13, 16 and 17 were rejected under 35 U.S.C. § 103(a) over U.S. Published Appln. No. 20030037167A1 (Garcia-Luna-Aceves) in view of U.S. Patent 5,034,933 (Sasuta). Claim 4 was rejected under 35 U.S.C. § 103(a) over Garcia-Luna-Aceves in view of U.S. Published Appln. No. 005850592A (Ramanathan). Claim 7 was rejected under 35 U.S.C. § 103(a) over Garcia-Luna-Aceves in view of U.S. Patent 6,381,467 (Hill et al.). Claims 9, 11, 19 and 20 were rejected under 35 U.S.C. § 103(a) over Garcia-Luna-Aceves in view of Sasuta et al., and further in view of U.S. Published Appln. No. 006137885A (Totaro et al.). Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Garcia-Luna-Aceves in view of Hill et al., and further in view of Totaro et al. Applicants submit that the independent claims are patentable over the cited art for at least the following reasons.

In the previous response, Applicants set forth reasons why the proposed combination of references cited against independent claims 1 and 12 is improper. This position is maintained. However, to expedite prosecution, each of those claims has been amended.

Amended claim 1 recites, inter alia, that in a relay station device having a first function for directly communicating with a center and a second function for communicating with the center via another relay station, one of a first operating mode for executing the first function and a second operating mode for executing the second function is set to the relay station device, and wherein a mode is selected based upon a communication quantity of the

relay station device. A mode switching signal is transmitted when the communication quantity reaches a predetermined condition.

Applicants submit that neither Garcia-Luna-Aceves nor Sasuta, each of which has been discussed in detail in previous responses, teach or suggest the mode switching signal being transmitted when the communication quantity reaches a predetermined condition. For at least this additional reason, claim 1 is believed clearly patentable over the prior art.

Amended claim 12 recites substantially the same feature and is believed patentable for similar reasons.

Claim 4 is directed to a network system. The network system includes: a center; a relay station device; and a terminal communicating with the center via the relay station device. The relay station device has a first function for directly communicating with the center and a second function for communicating with the center via another relay station, wherein one of a first operating mode for executing the first function and a second operating mode for executing the second function is set to the relay station device. When the relay station device cannot communicate with a host station including the another relay station, the relay station device is set to the first operating mode. When the relay station device cannot communicate with the host station including the another relay station, the relay station device outputs a communication stop signal indicating the host station to the center. When the host station can communicate with the relay station device, the host station outputs to the center a recovery declaration signal indicating that the host station can communicate with the relay station device, and wherein the center outputs to the relay station device a recovery notification signal indicating that the host station is communicable based on the communication stop signal and the recovery declaration signal, and wherein the relay station device is switched from the first operating mode to the second operating mode in response to the recovery notification signal.

In the most recent Office Action the Examiner conceded that Garcia-Luna-Aceves did not teach, inter alia, the feature of claim 4 by which when the relay station device cannot communicate with the host station including the another relay station, the relay station device outputs a communication stop signal indicating the host station to the center. Ramanathan is relied upon to remedy this deficiency. However, as was pointed out in the Response to Final Office Action filed December 15, 2005, the portions of Ramanathan cited in the Final Office Action *do not* teach what is recited.

In response to Applicants pointing out the above deficiency of the Final Office Action, the Examiner, in the Advisory Action mailed February 1, 2006, cited col. 4, lines 30-46 of Ramanathan as allegedly meeting the limitation of claim 4 of: "said relay station device cannot communicate with a host station including said another relay station, said relay station device is set to said first operating mode . . . ."

In particular, the Examiner in the Advisory Action took the position that the recited communication stop signal, sent when the relay station cannot communicate with the host station, reads on the resignation signal of Ramanathan. However, a close review of the cited portion of Ramanathan shows that the resignation signal is sent when ***a gateway has determined***, based on proximity conditions (presumably how close it is to other gateways), ***that it is redundant or unnecessary.*** The resignation signal is ***not*** sent when it is unable to communicate. (Col. 4, lines 30-41.)

In fact, as shown in Ramanathan's Figure 2, when a station is not able to transmit (decision step 41), it executes an affiliation procedure, at step 35; it does ***not send a communication stop signal.*** (Note that the text in Figure 2's decision symbol 41 should say "***able*** to transmit?" and not "unable to transmit?" This is clear from the corresponding portions of the specification at col. 3, lines 51-66.).

In view of the above, it is clear that: (a) Ramanathan does not issue a communication stop signal when it is unable to transmit; and (b) the resignation signal of Ramanathan is completely unrelated to whether or not a relay station is able to communicate. Rather, it is a function of whether a gateway is redundant, i.e., no longer needed. For at least these reasons, no prima facie case of obviousness has been established, since, even as combined, Garcia-Luna-Aceves and Ramanathan do not meet all the features of claim 4.

Claim 7 recites, inter alia, that the first relay station device is set to one of a first operating mode for executing said first function and a second operating mode for executing said second function based on said communication quantity data and that a mode switching signal is transmitted when the communication quantity reaches a predetermined condition. In the Office Action, it was conceded that Garcia-Luna-Aceves does not teach this feature. Hill et al. was alleged to remedy this deficiency.

Applicants maintain their arguments that the combination is improper for at least the reasons set forth in the previous responses. However, to expedite prosecution, claim 7 has been amended to recite the transmission of the mode switching signal when the communication quantity reaches a predetermined condition.

Applicants submit that none of the cited references teach or suggest this feature. For at least this reason, claim 7 is believed patentable over the cited references.

Claim 8 is directed to a network system. The network system includes: a center; a relay station device; and a terminal communicating with the center via the relay station device. The relay station device has a first function for directly communicating with the center and a second function for communicating with the center via another relay station. One of a first operating mode for executing the first function and a second operating mode for executing the second function is set to the relay station device in response to a message indicating mode switching transmitted from a slave station including the terminal.

The Office Action conceded that Garcia-Luna-Aceves does not teach the feature that one of a first operating mode for executing the first function and a second operating mode for executing the second function is set to the relay station device in response to a message indicating mode switching transmitted from a slave station including the terminal. Sasuta was relied upon to remedy this deficiency. In particular, the Advisory Action relied upon an alleged teaching in col. 3, lines 15-21 of the above-mentioned feature of claim 8.

However, the portion of Sasuta relied upon in the Office Action and the Advisory Action simply discusses the general concept of requesting additional resources if a fully loaded condition is encountered:

> Yet another scheme would hold all R of the resources (208) in reserve unless a specific request for additional resources were received from a communication system in need. If System 1 (201) were fully loaded such that all N of the permanently allocated resources (203) were in use, and yet had need of more resources to permit additional communication, System 1 (201) would request the allocation of an additional resource, and one of the R available resources (208) from the reserve group (207) would then be assigned to System 1 (201). Col. 3, lines 12-21.

However, there is no teaching or suggestion of the limitation of claim 8 discussed above. The request by system 1 (201) for more resources in Sasuta does not meet the recited limitation that one of a first operating mode for executing the first function and a second operating mode for executing the second function is set to the relay station device in response to a message indicating mode switching transmitted from a slave station including the terminal.

Moreover, such a request for resources is not a message indicating mode switching, as mode switching is defined in the rest of the claim. That is, there is no teaching in Sasuta that the request for more resources ***relates in any way to whether there is direct communication with a center (the recited first mode/function) or communication via a***

relay station (the recited second mode/function). For at least this reason, even if Sasuta and Garcia-Luna-Aceves are combined, the combination does not meet all of the limitations of claim 8, and no prima facie case of obviousness has been established.

The Examiner seemed to imply in the Advisory Action that somehow "the broadest reasonable interpretation" of this claim limitation could be met by the cited portion of Sasuta. However, if by making a broad interpretation the Examiner fails to give each term of the claim patentable weight, the interpretation is completely improper. Each term must be construed as recited, and in relation to the other terms in the claim. In this case it appears the Office Action is ignoring the fact that Sasuta's request does not relate to whether there is direct communication with a center (the recited first mode/function) or communication via a relay station (the recited second mode/function). This cannot be ignored since all the terms of the claim must be accorded patentable weight.

To meet the limitation of claim 8 would require that the request for additional resources in Sasuta relate to whether there is direct communication with a center (the recited first mode/function) or communication via a relay station (the recited second mode/function). However, Sasuta's request does not relate to this condition and therefore cannot be relied upon to remedy the deficiency of Garcia-Luna-Aceves as a reference against claim 8.

For at least this reason, claim 8 is believed patentable over the cited references. Claims 16 and 17 recite a similar feature and are believed patentable for substantially similar reasons.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the

invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

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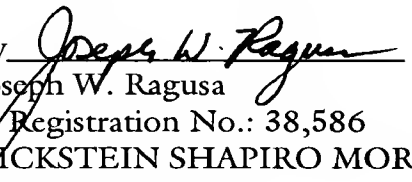
Respectfully submitted,

By 

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